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09/981,476	10/17/2001	Timothy James Collins	IND10254	6045

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MOTOROLA, INC.  
1303 EAST ALGONQUIN ROAD  
IL01/3RD  
SCHAUMBURG, IL 60196

EXAMINER

PENDLETON, DIONNE

ART UNIT	PAPER NUMBER
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2646

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/981,476

Applicant(s)

COLLINS ET AL.

Examiner

Dionne N. Harvey

Art Unit

2646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1, 3 and 5-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Steeves (US 6,570,487)** in view of **Meier (US 5,294,931)**.

Regarding claim 1, the claimed method is inherently taught by the apparatus of Steeves, which comprises: a tag reader system wherein **figure 3**, illustrates the step of choosing a time slot for data transmission based on RF traffic (see **column 8, lines 5-17**); thereby reading on "choosing a channel"; and further wherein if a first condition is met, said first condition being that the request for information is relevant to a particular tag, the tag will continuously transmit data until a confirmation signal is received (**column 9, lines 32-35**), reading on "and continuously transmitting data if a first condition is satisfied"; and further wherein if a second condition is met, said second condition being that the request for information is not relevant to a particular tag, the control logic section of the tag device generates a single outgoing *discharge* signal and ceases further transmission, reading on "ceasing transmitting data if the second predetermined condition is satisfied", which is in contrast to the plurality of outgoing signals (*an information signal and discharge signal*) which would be generated in the

instance where the request for information is relevant to the particular tag, see **column 9, lines 32-35**.

Steeves does not teach that the first predetermined condition is satisfied based on: the received power level exceeding a first threshold , OR that the second predetermined condition is satisfied based upon the received power level.

Meier teaches a means for identifying transponders, which are well known in the art, and which are often incorporated into Tag devices for inventory/storage purposes. Meier does not teach that the transponder devices are provided with "on/off" switches, thereby implying that the transponder device is in a constant "on" state for "continuously monitoring" for a received carried signal. In **column 2, lines 30-68**, Meier teaches that a plurality of transponders may be individually constructed so as to respond only when the power level of a received interrogation pulse is within a predetermined threshold range, reading on "a first predetermined condition is satisfied". Meier further teaches that in the instance where the power level of a received carrier signal exceeds a certain threshold value, reading on "second predetermined condition is satisfied", the tag device will not operate to transmit data.

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Steeves and Meier, for the purpose of further isolating select transponders/tags for data extraction while limiting the number of simultaneously produced answer signals during an interrogation.

Regarding claim 3, in Meier's discussion of "Transponder 1", while the power level of the interrogation pulse exceeds the lower power level threshold, i.e. the first

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predetermined condition is satisfied, it also exceeds the upper power level threshold, i.e., the second predetermined condition is also satisfied. Therefore "Transponder 1" does not transmit data.

Regarding claim 5, In **column 2, lines 30-60**, Meier teaches threshold level for a transponder/tag may vary based upon its' location with respect to the origin of the interrogation pulse, and is therefore interpreted as teaching that the predetermined thresholds are "random".

Regarding claim 6, In **figure 2**, Steeves teaches at least a first device **151** comprising: a receiver **203** for receiving a carrier signal; in **column 7, lines 40-42**; Steeves teaches that the device monitors the RF environment for an activation signal, and Steeves does not teach that the devices are provided with "on/off" switches, but instead that the tag devices are always in a state wherein a received carrier signal is detected, thereby teaching "a monitor, coupled to the receiver, for continually monitoring the carrier signal"; in **column 7, lines 58-64**, Steeves teaches that upon receipt of a request for information from the reader, each device *makes a determination* as to whether the request is relevant to the particular tag and if relevant, the tag *assembles a packet of data* for transmission, which reads on "a storage medium having data stored therein"; In **figure 3**, Steeves teaches a flowchart for illustrating the transmission of information between a tag and reader wherein monitoring of said carrier signal comprises determining whether a first predetermined condition has been met i.e., "is the request relevant?", and whether a second condition has been met i.e., "more packets?"; If the first condition is met, that is, if the request is relevant to the tag,

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Steeves teaches at **308-311** in the flow chart of **figure 3**, that a time slot, reading on “channel”, is chosen and further teaches that data is transmitted to the reader device until a confirmation signal is received, thus reading on “continuously transmitting data”, see **column 9, lines 32-35**; in the instance wherein a second condition is satisfied i.e., the request for information is not relevant to a particular tag, the control logic **50** of the tag device will cease signal transmission following the transmission of a discharge signal i.e., no data signal is transmitted to the reader device, see **column 9, lines 32-35**.

Steeves does not teach that the first predetermined condition and second conditions are based upon the detected power level of the carrier signal.

Meier teaches a means for identifying transponders, which are well known in the art, and which are often incorporated into Tag devices for inventory/storage purposes. In **column 2, lines 30-68**, Meier teaches that a plurality of transponders may be constructed so as to respond only when the power level of a received signal falls within a predetermined range i.e., “a first predetermined condition is satisfied”. Meier further teaches that data is not transmitted by the tag device when the power level of the received signal exceeds a certain threshold value, reading on “the second condition is satisfied based on the received power level.”

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Steeves and Meier, for the purpose of further isolating select transponders/tags for data extraction while limiting the number of simultaneously produced answer signals during an interrogation.

Regarding claim 7, in **column 7, lines 55-56 and lines 64-65**, Steeves teaches that the reader transmits a request to a single tag, to a subset of tags, or to any tag within range...the request may be for all tags corresponding, which reads on “wherein the first and second conditions of a first device are the same as the first and second conditions of a second device.

Regarding claims 8 and 10, **In claim 1, line 3-6**, Meier teaches “...only those transponders which have stored an amount of voltage which falls within their predetermined window, respond”. Therefore, in the situation where at least two transponders have identical response windows, Meier teaches that “the first and second devices transmit simultaneously.”

Regarding claim 9, Steeves further teaches that in given grouping of activated tags, one or more tags may not correspond to the request for relevancy, thereby reading on “the first and second conditions of a first device are different than the first and second conditions of a second device.

Regarding claim 11, **In column 7, lines 55-67**, Steeves teaches that the nature of the request of relevancy to the tag or tag grouping will vary i.e., not all tags may correspond to “fresh food crates”. Steeves therefore teaches that at least one of the first and second conditions are randomly assigned.

Regarding claim 12, Steeves teaches that more than one device may correspond to the relevancy request, i.e., more than one tag may correspond to “fresh food crates”, therefore in the case where tag devices corresponding to a particular category are

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“uniformly” stored, Steeves then teaches that “the second condition is uniformly distributed.”

Regarding claim 13, In **claim 1, line 3-6**, Meier teaches “... only those transponders which have stored an amount of voltage which falls within their predetermined window, respond”, thereby reading on “wherein the second condition is satisfied when the received power level exceeds a second threshold.”

2. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Steeves (US 6,570,487)** in view of **Meier (US 5,294,931)** as applied to claim 1 above, and further in view of **Carrender et al. (US 5,850,187)**.

Regarding claim 4, the combination of Steeves and Meier does not teach that the first predetermined condition is satisfied when a predetermined synchronization signal is received.

However, in **column 10, line 64 – column 11, lines 10**, Carrender teaches that in multi-channel systems, such as the system taught by Steeves, where two or more data channels are processed, the use of a synchronization signal is well known in the art. It would have been obvious for one of ordinary skill in the art at the time of the invention to alter the teachings of Steeves and Meier, per the teachings of Carrender, for the purpose of synchronizing data collection in the multi-channel data transmission systems.



***Response to Arguments***

3. Applicant's arguments filed 9/19/2005 have been fully considered but they are not persuasive.

With regard to the Applicant's argument that: **The Disclosures Of Steeves And Meier Fails To Teach Readers Which Dynamically Control When A Group Of Activated Tags Cease Data Transmission:**

As clearly explained in the above rejection, where the request for information is determined to be irrelevant to a particular tag, reading on "a second predetermined condition is satisfied", Steeves teaches that the control logic **50** of the tag device transmits only a single "discharge" signal (see **column 7, lines 11-36**), which is in contrast to the multiple output signals, data signal and discharge signal, which are transmitted by the control logic **50** when the request for information is found to be relevant to a particular tag. Therefore, since the control logic **50** operates to transmit only a single "discharge" signal, Steeves is interpreted as teaching "ceasing transmitting data if a second predetermined condition is met".

With regard to the Applicant's argument that: **Steeves And Meier Fail To Teach Continuously Transmitting Data If A First Predetermined Condition Is Satisfied.**

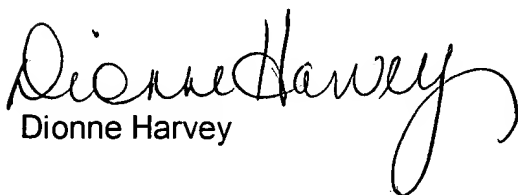
Steeves teaches that until a confirmation of receipt of data is received by the tag unit, the tag will continue to transmit data to the reader device. Since Steeves teaches an instance wherein the tag unit will continuously transmit data, the disclosure of Steeves meets the claim limitation of the claim.


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne N. Harvey whose telephone number is 571-272-7497. The examiner can normally be reached on 9-5:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Dionne Harvey

  
DUC NGUYEN  
PRIMARY EXAMINER